

Virginia's Solid Waste Management Program

Solid waste – normally called trash or garbage – is something everyone has in common. We all create it and have a responsibility to handle it properly.

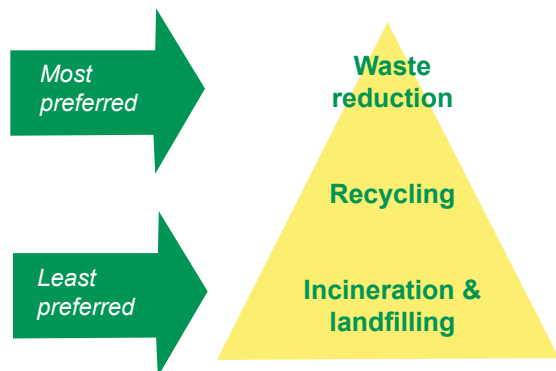
In Virginia, the Department of Environmental Quality and the state's Waste Management Board promote programs to manage waste in a way that is protective of the environment and the public. This includes:

- Working with localities to ensure that adequate solid waste treatment, storage and environmentally sound disposal facilities are available for all Virginia-generated waste.
- Maximizing the recovery of materials and energy from solid waste, while conserving natural resources.
- Developing and implementing safe processing, recovery and disposal practices for waste.

DEQ and board members (citizens appointed by the Governor) achieve their goals by supporting the development of waste management plans; upholding waste regulations, laws and permitting requirements; and working with the public.

Solid waste management plans

Virginia requires each city, county, town or designated region to develop a comprehensive solid waste management plan. The plans must consider and address Virginia's waste management hierarchy, which ranks the most preferable ways to address solid waste. Planning is the first step in the hierarchy. The following graphic shows the most to least preferred methods of managing waste in Virginia:



A contractor loads bales that are ready to be recycled onto a truck bed.

Where waste begins and ends in Virginia

Solid waste describes discarded materials, including trash from households, cities and counties, and industrial activities. These wastes may be generated from agricultural, industrial and construction activities; commercial businesses; government agencies; hospitals; households; and manufacturing and production facilities. Some solid wastes, such as hazardous waste or nuclear by-product materials, are excluded from the solid waste regulation since they are covered under other, more specific regulations. Some waste management practices, such as the composting of waste, may be conditionally excluded from regulation to promote reuse or recycling. Composting is the process of collecting and assembling organic materials in order to convert them into usable topsoil.

In 2005, there were 198 solid waste treatment, storage and disposal facilities operating in Virginia. These include composting facilities, waste transfer stations, energy recovery and incineration (or burning) facilities, municipal landfills and landfills that accept waste from industrial and construction activities. Energy or resource recovery facilities use energy generated from the waste disposal process. One example is using methane gas generated from decomposing waste as an energy source.

During 2005, these facilities managed more than 24 million tons of solid waste. Approximately 17.5 million tons originated within Virginia, and 7 million tons originated from other jurisdictions, including Maryland, New York, New Jersey, Washington D.C. and North Carolina. Based on the current disposal rate, Virginia's existing landfills could be used for about 18 years before reaching capacity. This

estimate does not account for changes in population, waste generation or disposal rates.

DEQ's regulatory roles in waste management

Solid waste management facilities must apply for and receive a permit (or authorization) or permit-by-rule from DEQ to operate in Virginia. A permit-by-rule is a simplified permitting process by which certain types of waste management facilities receive a permit upon submittal and DEQ approval of required application materials. Permit-by-rules are available for regulated medical waste facilities, composting facilities, transfer stations, barge receiving facilities, materials recovery facilities and energy recovery or incineration facilities. Other facilities, including landfills, require a full permit to operate.

DEQ inspects all permit and permit-by-rule facilities based on facility status. Active and inactive facilities are inspected quarterly. Facilities subject to post-closure care requirements, such as closed landfills, are inspected annually. Post-closure refers to the time period following the shutdown of a waste management facility during which it must be monitored. Post-closure care requirements typically include ground water and landfill gas monitoring or control and maintenance of the landfill cap. A landfill cap is a layer of clay or other material installed over the top of a land-

fill when it is closed. Should a facility be found to violate Virginia's laws, regulations or permit conditions, DEQ will take action to regain compliance. DEQ maintains a philosophy of fair and consistent enforcement actions that protect the well-being of citizens and Virginia's environment.

Public participation

Virginia regulations require an applicant to provide at least one public notice and public meeting prior to submitting many permit-by-rule applications and for new municipal solid waste landfill permit applications. DEQ provides a public notice and holds a public hearing prior to issuing a permit. Opportunities for public participation are also available in advisory group meetings, at public meetings during the comment period and during Waste Management Board meetings. In addition, written comments may be submitted throughout the development of a regulation.

More information on Virginia's Solid Waste Management Program is available on the DEQ web site at www.deq.virginia.gov/waste.

This document provides a general description of solid waste management in Virginia. For details on solid waste laws and regulations, please see the DEQ web site at www.deq.virginia.gov/regulations.

DESCRIPTIONS OF WASTE MANAGEMENT METHODS

*Most
preferred*

Waste Reduction – Most preferred way to manage waste because of its potential to reduce system costs and resources, prevent pollution and increase efficiency. Prevents trash by not creating it through reducing the amount of material used in manufacturing, increasing the useful life of a product, decreasing toxicity and encouraging material reuse and more efficient consumer use of materials.

Recycling – Includes collecting materials and reusing them, or remanufacturing the material and using the resulting products. (Examples include recycling aluminum cans, plastics and newspapers.) Also includes energy recovery or the use of energy generated from the waste disposal process, such as using methane gas generated from decomposing waste as a source of energy. Saves space in landfills, conserves energy and natural resources, and provides useful products and economic benefits.

*Least
preferred*

Incineration, Landfilling – Incineration or burning waste materials to destroy them reduces the amount of waste disposed of in landfills and can provide the added benefit of energy production. Landfilling or disposing of trash by burying is used to manage non-recyclable and non-combustible wastes.